

On page 15, line 8, after "photo mask" add the following phrase: - - with polarizing SOG - -.

In the Claims

Please cancel claims 10-16.

Please amend claims 1 and 7 as follows:

(214)

1. (amended) An apparatus for varying [the] optical transmission intensity on a substrate wafer in a photolithography process comprising:

a first polarizer capable of adjustment during [the] optical transmission such that [the contrast of] an optical image focused on said substrate wafer is [variable] varied in contrast, said adjustment made relative to a second polarizer; and,

a photo mask patterned with a plurality of optically transparent and optically opaque regions, wherein said transparent regions are impregnated with said second polarizer, fixed in a predetermined direction, such that said photo mask develops a diffraction pattern of said optical image during optical transmission.

7. (amended) An apparatus for varying the transmission intensity in a photolithography process comprising:

a light source for optically transmitting an incident electromagnetic radiation beam with a predetermined frequency spectrum;

5 a first polarizer capable of adjustment during [the] optical transmission such that [the
6 contrast of] an optical image focused on a substrate wafer is [variable] varied in
7 contrast, said adjustment made relative to a second polarizer;
8 focusing optics for concentrating said beam on said first polarizer;
9 a photo mask patterned with a plurality of optically transparent and optically opaque
10 regions, wherein said transparent regions are impregnated with said second polarizer,
11 fixed in a predetermined direction, such that said photo mask develops a diffraction
12 pattern of said optical image during optical transmission; and,
13 reducing optics to reduce and focus said diffraction pattern on said substrate wafer.

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Please add the following claims:

1 - - 17. An apparatus for varying optical transmission intensity on a substrate wafer in a
2 photolithography process comprising:

3 a first polarizer capable of adjustment during optical transmission such that an optical
4 image focused on said substrate wafer is varied in contrast, said adjustment made
5 relative to a second polarizer; and,
6 a photo mask comprising a transparent substrate and a spin-on-glass layer, said spin-on-
7 glass layer impregnated with said second polarizer fixed in a predetermined direction,
8 such that said photo mask develops a diffraction pattern of said optical image during
9 said optical transmission.

1 18. An apparatus for varying the transmission intensity in a photolithography process
2 comprising:

3 a light source for optically transmitting an incident electromagnetic radiation beam with a
4 predetermined frequency spectrum;

5 a first polarizer capable of adjustment during optical transmission such that an optical
6 image focused on a substrate wafer is varied in contrast, said adjustment made relative
7 to a second polarizer;

8 focusing optics for concentrating said beam on said first polarizer;

9 a photo mask comprising a transparent substrate and a spin-on-glass layer, said spin-on-
10 glass layer impregnated with said second polarizer fixed in a predetermined direction,
11 such that said photo mask develops a diffraction pattern of said optical image during
12 said optical transmission; and,

13 reducing optics to reduce and focus said diffraction pattern on said substrate wafer.- -

REMARKS

Applicant appreciates the thorough search conducted by the Examiner in examining the above-identified application. Applicant has endeavored to amend the application in a sincere effort to overcome the objections and rejections, and reconsideration is requested in view of the amendments above and the remarks below.